# 802.11b/g Mini Wireless LAN USB 2.0 Adapter

## User's Manual

# REGULATORY STATEMENTS

## FCC Certification

The United States Federal Communication Commission (FCC) and the Canadian Department of Communications have established certain rules governing the use of electronic equipment.

**Part15, Class B**

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interface, and

2) This device must accept any interface received, including interface that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

ω Reorient or relocate the receiving antenna.

ω Increase the distance between the equipment and receiver.

ω Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

**CAUTION:**

1) To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

2) This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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# INTRODUCTION

The **802.11b+g Wireless LAN USB Adapter** is designed for a USB type A port of a laptop or desktop computer for creating a wireless workstation. It is USB 2.0 compliant which connects to any available USB port on a notebook or desktop computer.

The **802.11b+g Wireless LAN USB Adapter** complies with **IEEE 802.11g** standard that offers a data rate up to **54Mbps** in a wireless LAN environment. It is backward compliant with IEEE 802.11b specification. The high-speed wireless network card can plug into your notebook or desktop PC and accesses to the LAN or peer-to-peer networking easily without wires or cables. Whether you're at your desk or in the boardroom, it allows you to share printers, files, and other network resources.

## Features

- Complies with IEEE 802.11g standard for 2.4GHz Wireless LAN
- USB 2.0 compliant
- USB Plug & Play
- Interoperable with existing network infrastructure
- Secure information transmission
- Freedom to roam while staying connected
- Compatible with specialty wireless products and services
- Up to 54 Mbps data rate
- Antenna is built in the card with LED indication
- Low power consumption
- Easy to install and configure

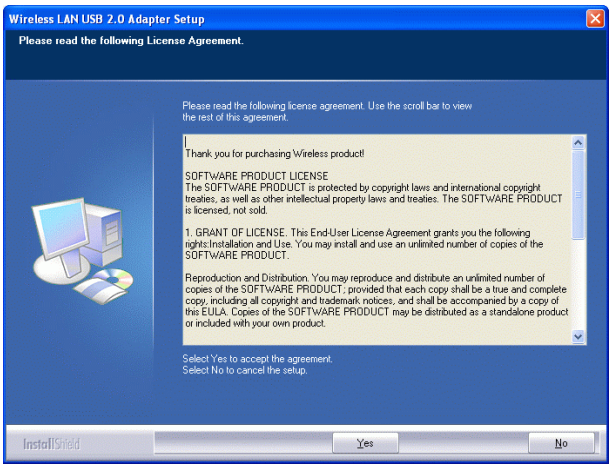
# SOFTWARE INSTALLATION

## Install the Driver & Utility

**Caution!**

**Do not insert the wireless LAN adapter into your computer until the procedures in " Install the Driver& Utility" have been performed.**

1. Exit all Windows programs. Insert the included CD-ROM into your computer. The CD-ROM will run automatically.
2. When the Main Menu screen appears, click **" Driver & Utility Installation"** to continue.
3. When the License Agreement screen appears, please read the contents and then click **Yes** to continue.

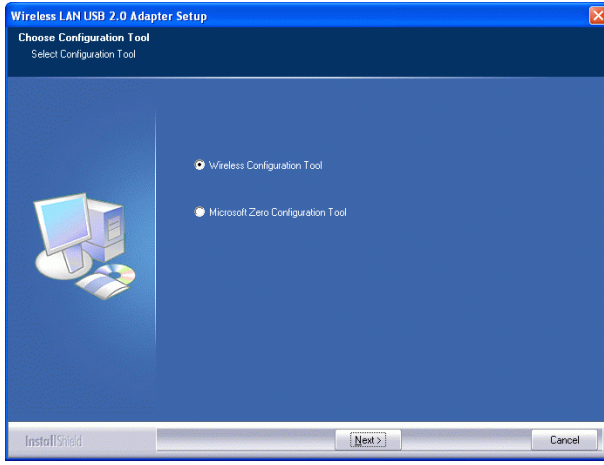



4. Select the check box to choose a **configuration Tool** from the listed two choices.

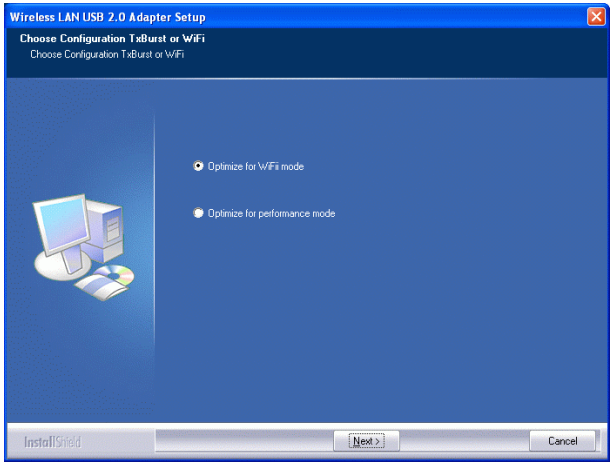
**Wireless Configuration Tool**: Choose to use our configuration utility.

**Microsoft Zero Configuration Tool**: Choose to use Windows XP's built-in Zero Configuration Utility (ZCU).

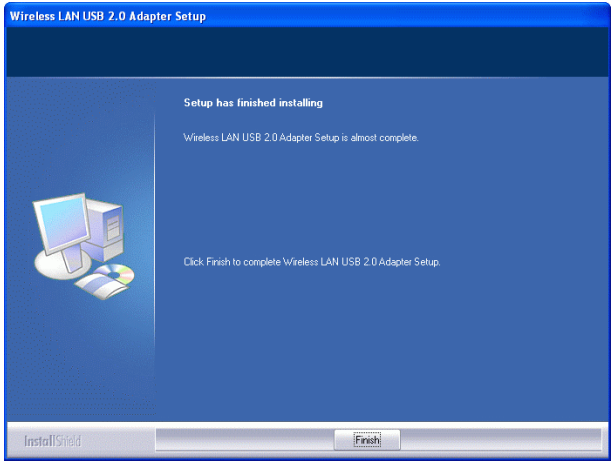
Click **Next** to continue.




5. There are two modes for you to choose in this screen, either choose WiFi mode or performance mode (TxBurst mode). This mode selection screen is set for the default mode shown in the utility screen, you can still change its mode later in the utility screen. Click **Next** to continue.




6. When the following screen appears, click Finish to complete the software installation.



# HARDWARE INSTALLATION

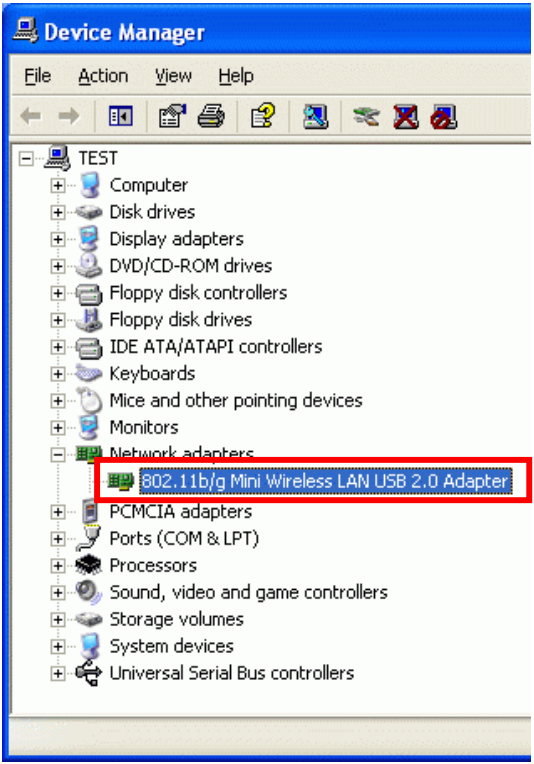
**Note**: Before you install the device to your computer, make sure you have installed the **driver** and **utility** as described in the previous section.

Windows 98SE/2000/ME / XP

1. Locate your USB host and insert the USB Adapter.
2. Once the device has been inserted to your computer, Windows will detect the new hardware.

## Hardware Installation Verification

To verify if the device exists in your computer and is enabled, go to **Start → Settings → Control Panel → System (→ Hardware) → Device Manager**. Expand the **Network Adapters** category. If the **802.11b/g Mini Wireless LAN USB 2.0 Adapter** is listed here, it means that your device is properly installed and enabled.

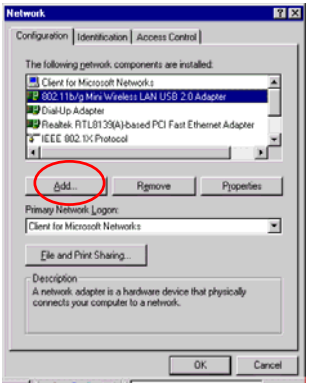

Device Manager
File
Action
View
Help
TEST
Computer
Disk drives
Display adapters
DVD/CD-ROM drives
Floppy disk controllers
Floppy disk drives
IDE ATA/ATAPI controllers
Keyboards
Mice and other pointing devices
Monitors
Network adapters
802.11b/g Mini Wireless LAN USB 2.0 Adapter
PCMCIA adapters
Ports (COM & LPT)
Processors
Sound, video and game controllers
Storage volumes
System devices
Universal Serial Bus controllers

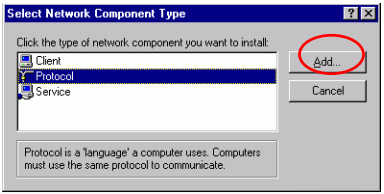
# NETWORK CONNECTION

Once the device driver is well installed, a network setting described in the following should be also established.

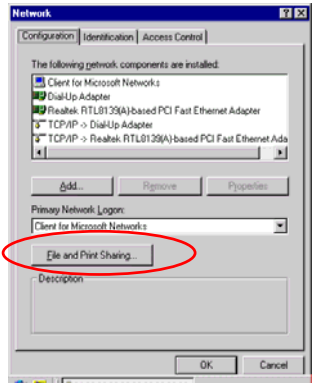
## In Windows 98SE/ME

1. Go to **Start → Settings → Control Panel → Network**.
2. Make sure that all the required components are installed. If any components are missing, click on the **Add** button to add them in.

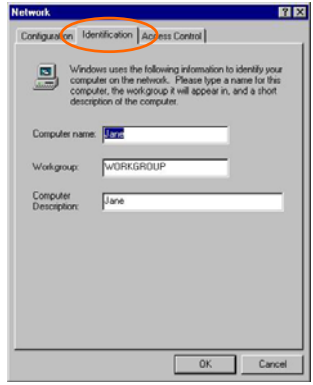


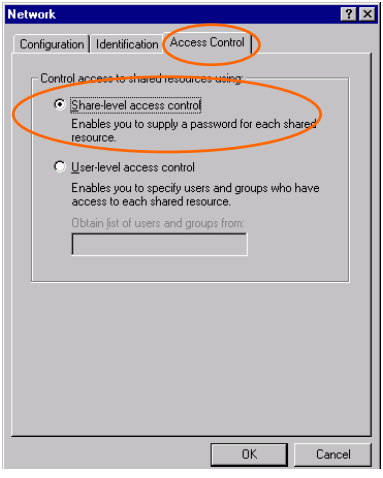
3. For making your computer visible on the network, enable the **File and Print Sharing**.




4. Click the **Identification** tab. Make up a name that is unique from the other computers' names on the network. Type the name of your workgroup, which should be the same used by all of the other PCs on the network.



5. Click the **Access Control** tab. Make sure that "**Share-level access control**" is selected. If connecting to a Netware server, share level can be set to "**User-level access control**."



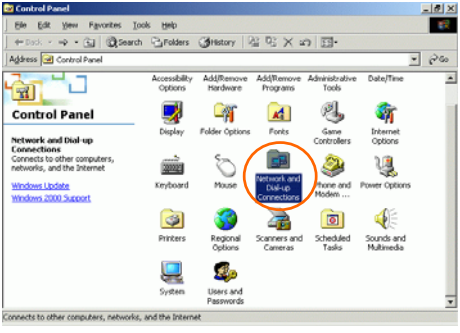

6. When finished, restart your computer to activate the new device.

## In Windows 2000/XP

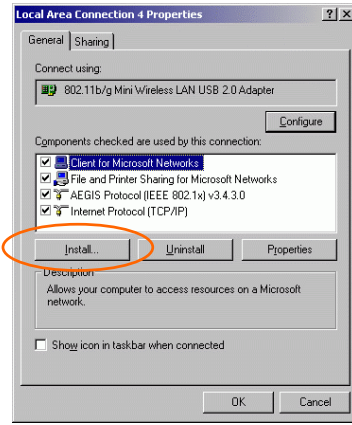
1. (In **Windows 2000**)

   Go to **Start→ Settings → Control Panel → Network and Dial-up Connections → Local Area Connection → Properties**.

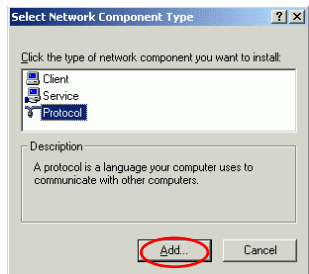
   (In **Windows XP**)
   Go to **Start → Control Panel → Network and Internet Connections → Network Connection → Wireless Network Connection →Properties.**



2. Make sure that all the required components are installed.




3. If any components are missing, click on the **Install…** button to select the **Client/Service/Protocol** required. After selecting the component you need, click **Add…** to add it in.

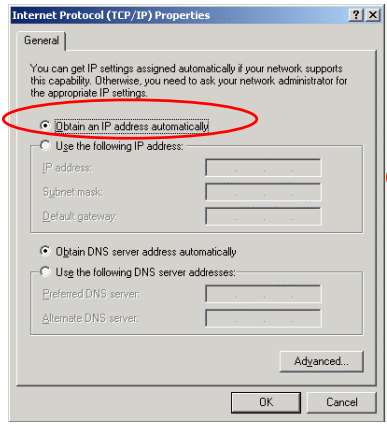


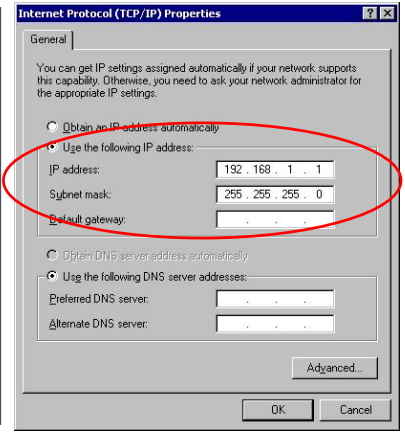

4. For making your computer visible on the network, make sure you have installed **File and Printer Sharing for Microsoft Networks**.

# IP Address

***Note**: When assigning IP Addresses to the computers on the network, remember to have the IP address for each computer set on the same subnet mask. If your Broadband Router use DHCP technology, however, it won't be necessary for you to assign Static IP Address for your computer.*

1. To configure a dynamic IP address (i.e. if your broadband Router has the DHCP technology), check the **Obtain an IP Address Automatically** option.
2. To configure a fixed IP address (if you broadband Router is not DHCP supported, or when you need to assign a static IP address), check the **Use the following IP address** option. Then, enter an IP address into the empty field, for example, enter ***192.168.1.1*** in the IP address field, and ***255.255.255.0*** for the Subnet Mask.



# Configuration Utility

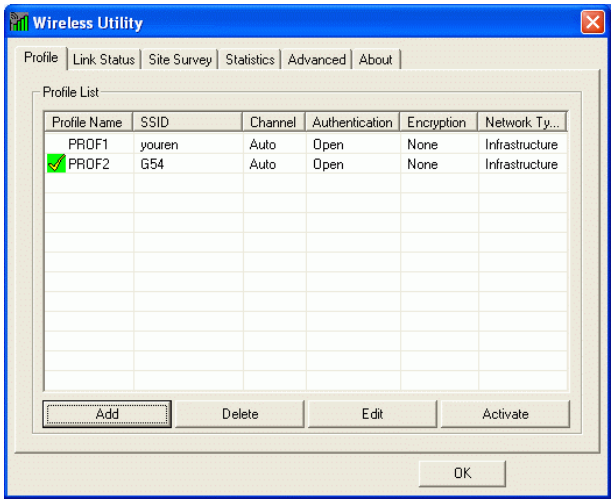
After the Wireless adapter has been successfully installed, users can use the included Configuration Utility to set their preference.

Go to **Start→ Program→Wireless LAN USB 2.0 Adapter→ Wireless Utility**

You can also open the Configuration Utility by clicking the icon.

# Profile

The Profile Manager enables you to create, edit and delete the profiles that the station uses to connect to WLAN networks, to activate and de-activate profiles, and to raise and lower a profiles's priority.

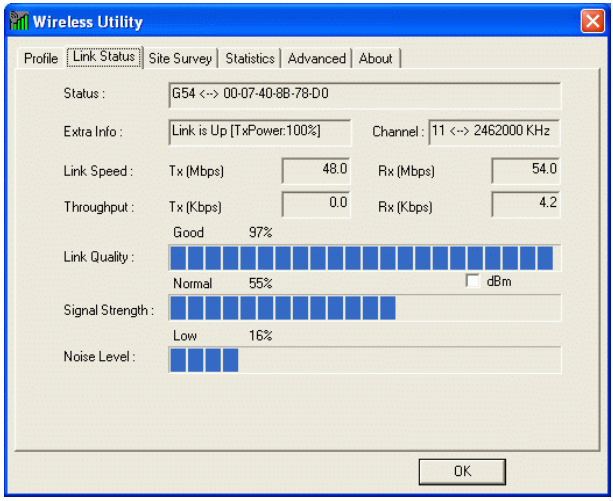



| Profile Tab | |
|---|---|
| **Profile Name** | You may enter a distinctive name of profile in this column. The default is PROF# (# 1, #2, #3....) |
| **SSID** | The **SSID** is the unique name shared among all points in your wireless network. |
| **Channel** | Shows the selected channel that is currently in use. (There are 14 channels available, depending on the country.) |
| **Authentication** | Shows the authentication mode of the device. |
| **Encryption** | Shows the encryption mode of the device. |
| **Network Type** | Shows the network type of the device. |
| **Add** | Click to add a profile. |
| **Delete** | Click to delete an existing profile. |

| | |
|---|---|
| **Edit** | Click to edit a profile. |
| **Activate** | Click to make a connection between devices. |
| **OK** | Click to exit this page. |

## Link Status

The link status page displays the detail information of current connection.

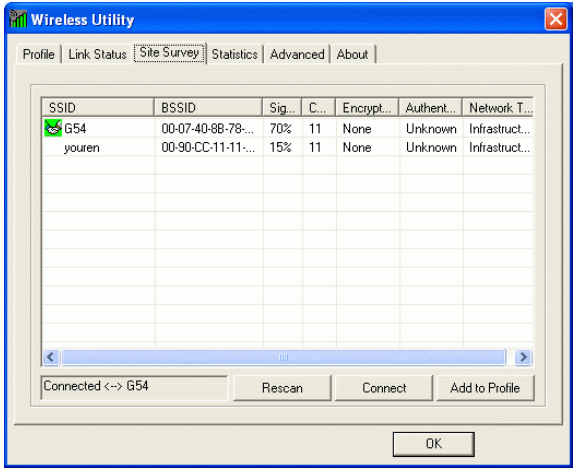



| Link Status Tab | |
|---|---|
| **Status** | Shows the current connection status. If there is no connection existing, it will show Disconnected. |
| **Extra Info** | Shows the link status. |
| **Channel** | Shows the current channel in use. |
| **Link Speed** | Shows the current transmitting rate and receiving rate. |
| **Throughput** | Shows the transmitting and receiving throughput in the unit of K bits/sec. |

| | |
|---|---|
| **Link Quality** | Shows the connection quality based on signal strength and TX/RX packet error rate. |
| **Signal Strength** | Shows the Receiving signal strength, you can choose to display as percentage or dBm format. |
| **Noise Level** | Shows the noise signal strength. |
| **OK** | Click to exit this page. |

## Site Survey

The Site Survey page displays the information of surrounding APs from last scan result. List information including SSID, BSSID, Signal, Channel, Encryption algorithm, and Network type.

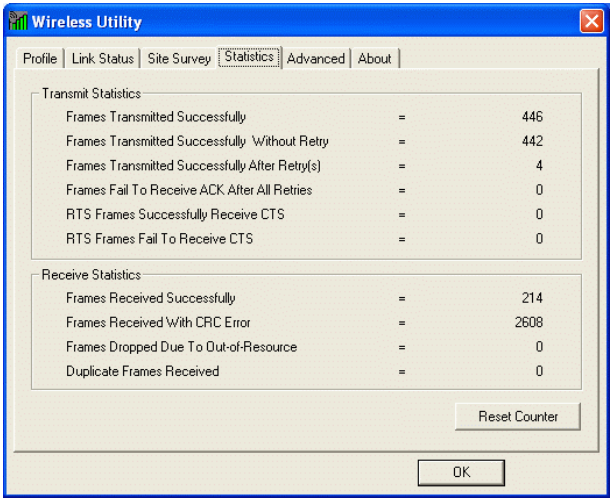



| Site Survey | |
|---|---|
| SSID | Shows the name of BSS of IBSS network. |
| BSSID | Shows the MAC address of the AP or randomly generated of IBSS. |
| Signal | Shows the receiving signal strength of specified network. |

| | |
|---|---|
| Channel | Shows the currently used channel. |
| Encryption | Shows the encryption type currently in use. Valid value includes WEP, TKIP, AES, and Not Use. |
| Authentication | Authentication mode used within the network, including Unknown, WPA-PSK, WPA2-PSK, WPA and WPA2. |
| Network Type | Network type in use, Infrastructure for BSS, Ad-Hoc for IBSS network. |
| Rescan | Click to refresh the site survey list. |
| Connect | Select an item on the list and then click to make a connection. |
| Add to Profile | Select an item on the list and then click to add it into the Profile list. |
| OK | Click to exit this page. |

## Statistics

Statistics page displays the detail counter information based on 802.11 MIB counters. This page translates that MIB counters into a format easier for user to understand.

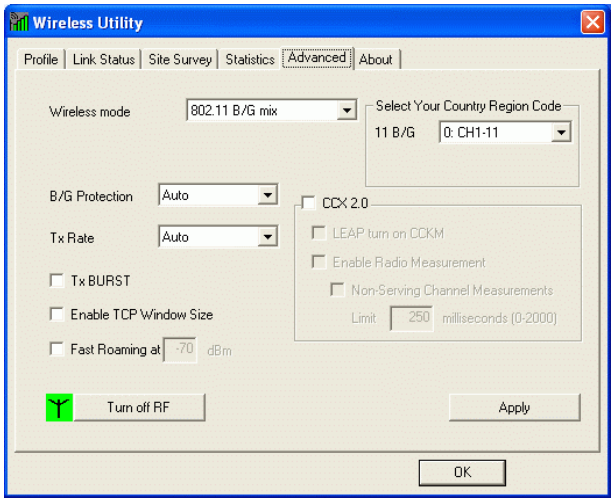



| | |
|---|---|
| **Transmit Statistics** | |
| Frames Transmitted Successfully | Frames successfully sent. |
| Frames Transmitted Successfully Without Retry | Frames successfully sent without any retry. |
| Frames Transmitted Successfully After Retry | Frames successfully sent with one or more reties. |
| Frames Fail To Receive ACK After All Retries | Frames failed transmit after hitting retry limit. |
| RTS Frames Successfully Receive CTS | Successfully receive CTS after sending RTS frame |
| RTS Frames Fail To Receive CTS | Failed to receive CTS after sending RTS. |
| **Receive Statistics** | |
| Frames Received Successfully | Frames Received Successfully |
| Frames Received With CRC Error | Frames received with CRC error. |
| Frames Dropped Due To | Frames dropped due to resource issue |

| | |
|---|---|
| Out-of-Resource | |
| Duplicate Frames Received | Duplicate received frames. |
| Reset Counter | Reset counters to zero. |

# Advanced

This Advanced page provides advanced settings.

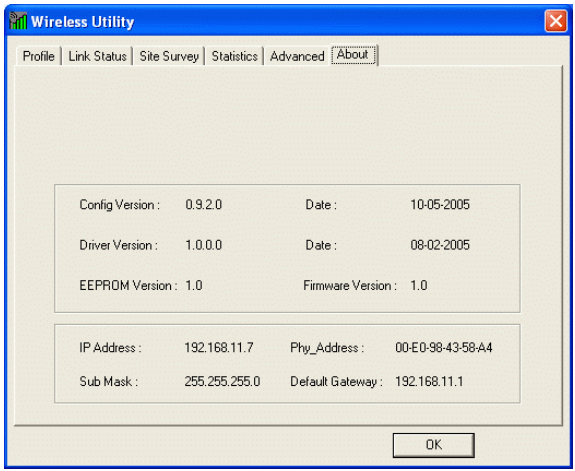



| Advanced Tab | |
|---|---|
| Wireless mode | Select wireless mode. 802.11b only and 802.11 b/g mixed mode are supported |
| Ad hoc wireless mode | Select ad hoc wireless mode. 802.11b only and 802.11 b/g mixed mode are supported. |
| 11B/G Protection | Choose **Auto**, **On** or **Off** from the pull-down menu. |
| Auto | STA will dynamically change as AP announcement |
| On | Always send frame with protection. |
| Off | Always send frame without protection. |

| | |
|---|---|
| TX Rate | Select the Tx rate from the pull-sown menu. The default is auto. |
| Tx Burst | Check to enable the burst mode. |
| Fast Roaming at | Check to set the roaming interval. |
| Select Your Country Region Code | Select your country region code from the pull-down menu. |
| CCX2.0: support Cisco Compatible Extensions function: | Check to enable the CCX2.0 function.<br>• LEAP turn on CCKM<br>• Enable Radio Measurement: can channel measurement every 0~2000 milliseconds.<br>• Enable QOS: enable Quality of Service.<br>Turn radio ON/OFF for FAA requirement. |
| Radio Off/On | Click to turn off the radio function. |
| Apply | Click to apply the above settings. |

# About

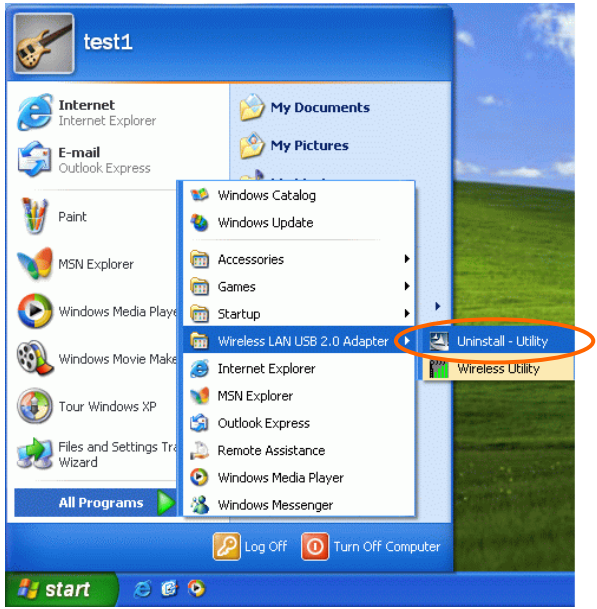
About page display the wireless card and driver version information



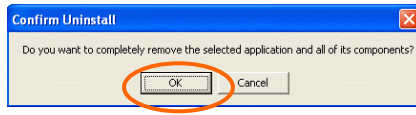
# UNINSTALLATION

In case you need to uninstall the Utility and driver, please refer to below steps. (As you uninstall the utility, the driver will be uninstalled as well.)

1. Go to **Start → Programs →Wireless LAN USB 2.0 Adapter→ Uninstall - Utility**.




2. Click **OK** to continue.




3. Click **Finish** to complete the uninstalled procedure.